

### REMARKS

Claims 1-34 are pending in this application. Claims 1, 4, 6, 7, 9, 11, 12, 14, 16, 17, 20, 22, 23, 25, 27, 29, 30, 32, and 34 have been amended. Claims 5, 8, 13, 21, 26 and 31 have been canceled without prejudice. It is respectfully submitted that no new matter has been added.

Applicants gratefully acknowledge the Examiner's indication that claims 3, 5, 6, 10, 13-15, 18, 19, 21-24, 27, 28 and 31-33 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### Rejections under 35 U.S.C § 101:

Claims 11, 16, 29 and 34 stand rejected under 35 U.S.C. § 101 for the reasons set forth on pages 2-3 of the Office Action.

Claim 11 has been amended to recite, *inter alia*,

A recording medium having instructions stored thereon for execution by a computer-executable program code readable by machine, tangibly embodying a program of instructions executable by the machine to perform a method of steps for detecting a type of an optical disc inserted into an optical disc system, the method comprising:

- detecting a focus error signal from the optical disc; and
- measuring a duty of the focus error signal by detecting a voltage of the focus error signal and detecting the type of the optical disc depending on the measured duty...

Claim 11 is believed to be statutory subject matter since it is directed to a "recording medium readable by machine, tangibly embodying a program of instructions executable by the machine". MPEP indicates that when functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology

permits the function of the descriptive material to be realized. See e.g., MPEP § 2106 (IV) (B)(1).

Claims 16, 29 and 34 have been similarly amended and are believed to be directed to statutory subject matter for at least the reasons discussed above for claim 11.

Therefore, Applicants respectfully request that the rejection under 35 U.S.C. § 101 be withdrawn.

**Rejections under 35 U.S.C § 102:**

Claims 1, 2, 4, 7, 8, 9, 11, 12 and 16 stand rejected under 35 U.S.C § 102 (b) as being anticipated by Hwang (US6,058,082).

Claim 1 recites, *inter alia*, a duty measurer that compares the n-bit voltage data with a positive noise voltage level and a negative noise voltage level. Applicants respectfully submit that Hwang does not disclose the above-claimed feature.

The Examiner states that Hwang discloses “a duty measurer that compares the n-bit voltage data with a positive noise voltage level (Fig. 4C, element 423) and a negative noise voltage level (Fig. 4C, element 421)”. Applicants respectfully disagree.

It is respectfully submitted that element 423 in Fig. 4C is a step to compare a voltage with a predetermined maximum value Vmax, not with a positive noise voltage level. Further, element 421 is a step to compare a voltage with a predetermined minimum value Vmin, not with a negative noise voltage level.

Therefore, Applicants respectfully submit that claim 1 is not anticipated by Hwang.

Claim 2 depends from claim 1. Claim 2 includes the elements of the independent claim and therefore is not anticipated by the cited reference for at least the reasons given above.

With respect to claim 4, Applicants respectfully disagree with the rejections. Nevertheless, to place the application in condition for allowance, Applicants have incorporated the features of allowable claim 5 into claim 4.

With respect to claims 7 and 11, amended claims 7 and 11 recite, *inter alia*, buffering an n-bit voltage data. Applicants respectfully submit that Hwang does not disclose buffering an n-bit voltage data. Hwang describes a servo signal processor (8) receiving a signal from the A/D converter (7). However, neither the servo signal processor (8) nor elsewhere of Hwang discloses or suggests a buffer which buffers an n-bit voltage data.

Therefore, Applicants respectfully submit that claims 7 and 11 are not anticipated by Hwang.

Claim 9 depends from claim 7. The dependent claim is allowable for the reasons given above for claim 7.

With respect to claim 12, Applicants respectfully disagree with the rejections. Nevertheless, to place the application in condition for allowance, Applicants have incorporated the features of allowable claim 13 into claim 12.

With respect to claim 16, amended claim 16 recites, *inter alia*, comparing current voltage data of the n-bit voltage data with previous voltage data of the n-bit voltage data. Applicants respectfully submit that Hwang does not disclose or suggest this feature.

Therefore, Applicants respectfully request that the Examiner withdraw the rejections of claims 1, 2, 4, 7, 8, 9, 11, 12 and 16 under 35 U.S.C § 102 (b) and that claims 1, 2, 4, 7, 9, 11, 12 and 16 are in condition for allowance. Claim 8 has been canceled.

Claims 17, 20, 25, 26, 29, 30 and 34 stand rejected under 35 U.S.C § 102 (e) as being anticipated by Kadlec (US6,882,603).

Amended claim 17 recites, *inter alia*, a duty measurer that buffers the n-bit voltage data. Amended claims 25 and 29 recite, *inter alia*, buffering an n-bit voltage data. Applicants respectfully submit that Kadlec does not disclose a duty measurer that buffers an n-bit voltage data. Kadlec describes comparing a signal with a threshold value and counting the number of times that the signal exceeds the threshold value. However, Kadlec does not disclose or suggest a buffer which buffers an n-bit voltage data.

Therefore, Applicants respectfully submit that claims 17, 25 and 29 are not anticipated by Kadlec.

With respect to claim 20, Applicants respectfully disagree with the rejections. Nevertheless, to place the application in condition for allowance, Applicants have incorporated the features of allowable claim 21 into claim 20.

With respect to claim 30, Applicants respectfully disagree with the rejections. Nevertheless, to place the application in condition for allowance, Applicants have incorporated the features of allowable claim 31 into claim 30.

With respect to claim 34, amended claim 34 recites, *inter alia*, comparing current voltage data of the n-bit voltage data with previous voltage data of the n-bit voltage data. Applicants respectfully submit that Kadlec does not disclose or suggest this feature.

Therefore, Applicants respectfully request that the Examiner withdraw the rejections of claims 17, 20, 25, 26, 29, 30 and 34 under 35 U.S.C § 102 (e) and claims 117, 20, 25, 29, 30 and 34 are in condition for allowance. Claim 26 has been canceled.

Notice is respectfully taken that dependent claims 3, 5, 6, 10, 13-15, 18, 19, 21-24, 27, 28, and 31—33 set forth allowable subject matter.

For the foregoing reasons, the present application is believed to be in condition for allowance. The Examiner's early and favorable action is respectfully requested. The Examiner is invited to contact the undersigned if he has any questions or comments in this matter.

Respectfully submitted,



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